

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-42. (Canceled).

43. (New) Fibers comprising a polymer matrix having at least one metal in the form of nanoparticles incorporated therein, formed from a mixture of a polymer dope selected from a natural polymer, polyethylene, polyethylene terephthalate, nylon, acrylic, rayon, spandex, polyurethane, electromeric polymers, polyacrylonitrile, acetate fibers, viscose fibers or a combination thereof and metal nanoparticles; by

- (i) mixing metal nanoparticles with the polymer dope;
- (ii) sonicating the metal nanoparticles and polymer dope; and
- (iii) solidifying the polymer composite from the dope by a fiber extrusion process.

44. (New) Fibers according to claim 43, wherein the nanoparticles are distributed in a substantially uniform manner across the fiber cross section.

45. (New) Fibers according to claim 43, wherein the metal nanoparticles have a size less than 500 nm.

46. (New) Fibers according to claim 45, wherein the metal nanoparticles have a size less than 100 nm.

47. (New) Fibers according to claim 46, wherein the metal nanoparticles have a size in the range 20 to 100 nm.

48. (New) Fibers according to claim 43, wherein the metal nanoparticles have antimicrobial properties.

49. (New) Fibers according to claim 48, wherein the metal nanoparticles comprise Ag, Au, Pt, Pd, Ir, Sn, Cu, Sb, Bi, or Zn, or any combination thereof.

50. (New) Fibers according claim 49, wherein the metal nanoparticles comprise Ag.

51. (New) Fibers according to claim 43 having a diameter of less than 500 microns.

52. (New) Fibers according to claim 51 having a diameter of less than 100 microns.

53. (New) Fibers according to claim 52 having a diameter of 10 to 50 microns.

54. (New) Fibers according to claim 43, wherein said natural polymer comprises alginate.

55. (New) Fibers according to claim 54, wherein the polymer matrix comprises alginate and Ag is present in the polymer matrix in an amount between 0.1 and 15 % w/w.

56. (New) Fibers according to claim 55, wherein the Ag is present in an amount between 0.1 and 2 % w/w.

57. (New) Fibers according to claim 53, wherein said synthetic polymer comprises polyacrylonitrile.

58. (New) Fibers according claim 56, wherein the polymer matrix comprises polyacrylonitrile and Ag is present in the polymer matrix in an amount between 0.05 and 2 % w/w.

59. (New) A wound dressing comprising fibers according to claim 54.

60. (New) A woven or non-woven fibrous article comprising fibers according to claim 43.

61. (New) A fabric comprising fibers according to claim 43.